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AUTHOR Seagraves, Margaret C.
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ABSTRACT

The purpose of this research study was to build and pilot a psychometric instrument, the Primary Childhood School Success Scale (PCSSS), to identify behaviors needed for children to be successful in first grade. Fifty-two teacher responses were collected. The instrument had a reliability coefficient (Alpha) of 0.95, a mean of 13.26, and a variance of 11.01. The ratings of item totals were within close range. The teacher subjects noted sequentially writing the alphabet in lower and upper case letters, arranging pictures in order to tell a story, remaining in designated space, listening, and attending to a task as the most important behaviors. The least important behaviors indicated by this sample were placing a telephone call for help, knowing the dime coin and value amount, having no sleep problems, knowing birth date, and tying shoes. (Contains 31 references.) (Author)

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MARGARET C. SEAGRAVES

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PRIMARY CHILDHOOD SCHOOL SUCCESS SCALE

by

Margaret C. Seagraves

The University of Alabama

Tuscaloosa, Alabama

MidSouth Educational Research Association

Biloxi, Mississippi

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Abstract

The purpose of this research study was to build and pilot a psychometric instrument, Primary Childhood School Success Scale (PCSSS), to identify behaviors for children to be successful in first grade. Fifty-two teacher responses were collected. The instrument had a reliability coefficient (Alpha) of .95, a mean of 13.26, and a variance of 11.01. The ratings of item totals were within close range. The teacher subjects noted sequentially writing the alphabet in lower and upper case letters, arranging pictures in order to tell a story, remaining in designated space, listening, and attending to a task as the most important behaviors. The least important behaviors indicated by this sample were placing a telephone call for help, knowing the dime coin and value amount, no sleep problems, knowing birth date, and tieing shoes.

Primary Childhood School Success Scale

Investigators have been analyzing and synthesizing meaningful research studies to find cues which relate preschool children behaviors to school success (Bagnato & Neisworth, 1994; Bear, 1995; Bracken, 1991; Hall & Barnett, 1991; Myrick, 1993). Identification of school success with kindergarten children has been selected as a priority target area for schools by the United States Department of Education (1992). One of the eight goals of Goals 2000 (U. S. Department of Education, 1990) is that "all children in American will start to school ready to learn." If "start to school" refers to grade one, skills children learn in kindergarten may be critical for "ready to learn." Characteristics for success with children in grade one focus on integrated curriculum, teaching strategies, social emotional development, and evaluation (National Association for the Education of Young Children [NAEYC], 1992). Further, "The authors and AGS staff recognize the importance of the early childhood period in the optimal development of children, and strongly believe that effective preschool screening, as one of the first steps in assessing and providing interventions for at-risk children and their families, can ultimately result in the prevention of children's later learning and behavior problems" (Harrison, 1990, p. v).

Purpose

The purpose of this instrument will be to identify behaviors which contribute to childrens' kindergarten promotion and success in

first grade as measured by the Primary Childhood School Success Scale (PCSSS). The scale will be designed for administration with children at the end of their kindergarten school year. Specifically, this pilot study purpose was to collect and analyze behavior indicators for childhood school success as noted by teachers of children in kindergarten and first grade. The intent was to use feedback from the findings to guide teachers as they clarify needs and facilitate learning with young children (Barona & Barona, 1991; Beck & Winsler, 1995; Sattler, 1992; Tobias & Seagraves, 1994).

Theoretical Construct

The theoretical construct for this instrument confirmed that kindergarten and first grade teachers' perception of childrens' competency and conduct designate core skills which serve as indicators for first grade success. The assumption indicated that an analysis of teachers' responses on an instrument of core characteristics for grade one success would establish a nucleus of behaviors to teach children.

Variables

The variables for the PCSSS were academic and conduct behaviors which were classified into skill domains of verbal, nonverbal, social, adaptive behavior, and school information readiness. Variable to item transition, refinement, and revision was solicited from two kindergarten teachers, two first grade teachers, one special education director, one special education resource teacher of children with learning disabilities, one school psychologist, one corporation

executive, one clinical psychologist, one university professor in early childhood education, and one educational research professor.

Items

An empirical literature review yielded 52 items for the PCSSS. The items were consistent and relative to the five domains: verbal skills items, 10; nonverbal skills items, 14; social skills items, 8; adaptive behavior skills items, 10; and school information readiness items, 10(Bear, 1995; Beck & Winsler, 1995; Harrison, 1990; Ladson-Billings, 1995; Rafoth & Carey, 1995).

Population Utility

The PCSSS was designed for use by kindergarten teachers to determine skill acquisition strategies and interventions for children attending kindergarten. The skills will comply with kindergarten promotion standards and facilitate first grade success. The instrument could be a skill checklist rating scale completed for the child at the end of kindergarten to provide baseline information for curriculum and intervention plans (Barnett & Ehrhardt, 1995; Elliott, Racine, & Bruce, 1995; Gridley, Mucha, & Hatfield, 1995).

Test Skill Requirements

This pilot study for the PCCSSS required the participating kindergarten and first grade teachers to be certificated with a bachelor's degree or master's degree and be currently employed by a school system. A knowledge of standards for curriculum, instruction, and promotion would have been useful in identifying the essential

characteristics for children to acquire in preparation for first grade expectations. Developmental stages in the maturation of children (i.e., cognitive, physical, social, and emotional) may have assisted the research study participants as they selected the priority of each instrument item (Beck & Winsler, 1995; Seagraves, 1992; Shaffer, 1994).

Research Question

Which core competency and conduct indicators of kindergarten and first grade students spotlight their success for grade one as predicted by teachers who teach kindergarten and first grade students?

Hypothesis

For research purposes, the following hypothesis is proposed:

1. Kindergarten and first grade teachers will identify a nucleus of conduct skills and academic competencies predictive of first grade success with children.

Literature Review

Research to confirm the value of context and procedures in child assessment instrument components can serve as a guide for instruction modifications. Retention in kindergarten may be avoided if assessment screening results identify children at risk. These children can receive training to meet their needs as they acquire a core of skills for grade one success. A screening device, composed of indicators valued by teachers, may be administered at the conclusion of the kindergarten year to further predict early school success, while

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preventing failure frustration in young children (Ladson & Billings, 1995; Lidz, 1995; Rafoth & Carey, 1995).

Instrument Implications

A myriad of instruments is available for implementation in the target setting. Standardization, reliability, and validity of the measuring device and in service delivery to young children are vital (Guidubaldi, DePolt, & Myers, 1991; Freund & Littell, 1991).

Developmental Constraints and Tendencies Within Young Children

Readiness conditions for skill and knowledge gain by young children tend to be governed by developmental stages incorporating the total child. Within the age span, variations are evident, particularly as environmental influences are analyzed and classified (Krohn, Lamp, & Phelps, 1988; Shaffer, 1994).

School attainment by a personalized plan becomes important. Learning strategies and behavior interventions during the early education of children tend to maximize academic gain and minimize failure with young learners (Bergan, Sladeczek, Schwarz, & Smith, 1991). Decisions, revising the learning prescriptions, and timing of instruction conditions, can provide invaluable momentum into the competency attainment by young children (Barnett & Ehrhardt, 1995; Gridley, Mucha, & Hatfield, 1995; Ladson-Billings, 1995).

Value and Dependability of Particular Instruments

Instruments for assessment screening of young children are being developed and marketed to school systems in various educational

environments. Interventions to facilitate remediation of young childrens' deficits are critical (Bracken, 1991; Elliott, Racine, & Bruce, 1995; Gridley, Mucha, & Hatfield, 1995; Seagraves & Harrison, 1994).

Identification of the purpose, components, procedures, system realities, and adaptive behavior processes are considerations for the school system. For this research, a limited span of instruments has been selected to review. Success relative to the developmental stage and designated indicators are designed in the following instruments: (1) The Manual for AGS Early Screening Profiles (AGSESP), (Harrison, 1990), provides a unique measurement design; (2) The Manual for Phelps Kindergarten Readiness Scale, (PKRS) (Phelps, 1991) exemplifies concise instrument administration directions and scoring system; (3) The Manual for Kaufman Assessment Battery for Children (K-ABC), (Kaufman, 1983), outlines interpretation of intellectual and achievement skills within constructs; (4) The Manual for Wechsler Individual Achievement Test (WIAT), (Wechsler, 1992) combines related achievement skills by grade level in the achievement domains for composite information in addition to building a regression graph correlating the WIAT domains with the intelligence test; (5) The Manual for Child Behavior Checklist for Ages 4-18 (CBC), (Achenbach, 1991), measures social and adaptive behaviors and is useful to tabulate personality information; and (6) The Manual for Appropriate Education in the Primary Grades Standards (AEPGS), (National

Association for the Education of Young Children (NAEYC), 1992), outlines curriculum content and instruction strategies as a guide for teachers while they help children acquire designated skills.

Language study revealed that approach and withdrawal characteristics correlate with reading skills and teacher assigned grades. In addition, behavior disordered children may achieve more poorly and demand distinctive features of prescriptive environments following assessment (Elliott et al., Martin, Drew, Gaddis, & Moseley, 1988). Location and cultural fairness may be considerations for viewing assessments and screening instruments. The Kaufman Assessment Battery for children (K-ABC) and Stanford-Binet Intelligence Scale (SB-LM) when compared, generated no significant differences; however, the Kaufman's estimated that the race inconsistency was reduced to seven points for their test (Krohn et al., 1988).

Standardization Sample

Sample Description

The PCSSS was piloted with 52 kindergarten and first grade teachers who were cluster sampled by school from districts in Alabama, Georgia, and North Carolina. The kindergarten sample contained 21 teachers, while the first grade sample included 31 teachers. The sample was equal with 13 teachers from Alabama and Georgia, while respectively, 26 subjects from North Carolina participated. The ethnic, racial background of the subjects was 2 Black Non-Hispanic, and 50 White Non-Hispanic. The samples were nearly balanced with

respect to earned degrees. Twenty-five subjects held a bachelor's degree and 27 subjects held a master's degree. The whole sample was female and largely nonminority (96% White Non-Hispanic and 4% Black Non-Hispanic). The sample contained approximate proportions of kindergarten teachers of 40% and 60% of first grade teachers. Interestingly, the subjects from Alabama and Georgia each comprised 25% of the sample. One half, 50%, of the sample was in North Carolina. Similarly, equality existed between subjects with earned degrees. Forty-eight percent of the subjects held bachelor's degrees while 52% held master's degrees.

Reliability and Validity

Reliability and Standard Error of Measurement

The Cronbach Coefficient Alpha was selected for analyzing the PCSSS. A total test coefficient of .95 was acquired, which indicated a high reliability. Item to total correlations ranged from .74 to .27 (Freund & Littell, 1991). The standard error of measurement for the PCSSS was .74. Using the alpha coefficient, this standard error, using the alpha coefficient, appeared to indicate marginal error combined with a high reliability (Freund & Littell, 1991).

Valid for Intended Use

The prepilot instrument appeared to have relatively good discrimination. The purpose of this instrument was to identify the skills teachers note as essential for children to gain for success in first grade.

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Content validity was erected by relating the items to the total test score. In addition, the item to total correlation provided evidence of construct validity.

Criterion validity was indicated by the National Association for the Education of Young Children (1992), test instruments in the literature search, and items contributed by the prepilot participants. Additional criterion value, utility, and relevance may be generated with correlation of the instrument item gain by kindergarten children with school promotion standards.

Conclusions

Indications point to the potential usefulness of the PCSSS as an instrument for its stated purpose of predicting behaviors which measure kindergarten promotion and first grade success. The participating teachers indicated that the review of core features of instruction for shaping skills and attitudes with young children labeled as "most" important universally was useful to them in their instruction. Results from the study could have implications for "most" important features of kindergarten teaching and learning.

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